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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
STOREY, WILLIAM C

ART UNIT	PAPER NUMBER
2625	

NOTIFICATION DATE	DELIVERY MODE
03/19/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/700,215	SEVIER, RICHARD G.
	Examiner	Art Unit	
	WILLIAM C. STOREY	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 January 2009</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,5-10,20,24-29,39 and 50</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,5-10,20,24-29,39 and 50</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   Claim(s) 50 (and dependents) is/are rejected under 35 U.S.C. 101 because the

possibility exists for the claims to be embodied as software, or non-patentable material

(i.e. the means could be embodied as software). Please establish that the claims are

not directed to software, or non-patentable material. When treating each limitation of a

claim that appears to be directed to a machine such as a "system", "apparatus", or

"arrangement", if the claim is reasonably read on the corresponding software portion of

the disclosure, the claim as a whole will be treated as directed to entirely a software

embodiment, not a hardware embodiment.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent
Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV,
reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional
> descriptive material." In this context, "functional descriptive material" consists of data structures and
> computer programs which impart functionality when employed as a computer component. (The
> definition of "data structure" is "a physical or logical relationship among data elements, designed to
> support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and
> Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited
> to music, literary works and a compilation or mere arrangement of data.

> When functional descriptive material is recorded on some computer-readable medium it becomes
> structurally and functionally interrelated to the medium and will be statutory in most cases since use of
> technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32
> F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a
> computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33
> F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in
> memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at
> 1760 (claim to a data structure per se held nonstatutory).

> In contrast, a claimed computer-readable medium encoded with a computer program is a computer
> element which defines structural and functional interrelationships between the computer program and
> the rest of the computer which permit the computer program's functionality to be realized, and is thus
> statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim(s) 50 is/are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 50 defines a system embodying functional descriptive material. However, the claim does not define a "computer-readable medium or computer-readable memory" and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). The scope of the presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program. The examiner suggests amending the claim(s) to embody the program on "computer-readable medium" or equivalent; assuming the specification does NOT define the computer readable medium as a "signal", "carrier wave", or "transmission medium" which are deemed non-statutory (refer to "note" below). Any amendment to the claim should be commensurate with its corresponding disclosure.

Note:

"A transitory, propagating signal … is not a "process, machine, manufacture, or composition of matter." Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. § 101; thus, such a signal cannot be patentable subject matter." (*In re Petrus A.C.M. Nuijten;* Fed Cir, 2006-1371, 9/20/2007).

Should the full scope of the claim as properly read in light of the disclosure encompass non-statutory subject matter such as a "signal", the claim as a whole would be non-statutory.   Should the applicant's specification define or exemplify the computer readable medium or memory (or whatever language applicant chooses to recite a computer readable medium equivalent) as statutory tangible products such as a hard drive, ROM, RAM, etc, **as well as** a non-statutory entity such as a "signal", "carrier wave", or "transmission medium", the examiner suggests amending the claim to _include_ the disclosed tangible computer readable storage media, while at the same time _excluding_ the intangible transitory media such as signals, carrier waves, etc.

The examiner appreciates the applicant's desire to preclude the claims from being interpreted as signals, waves, etc. To further this aim, the examiner suggests amending ¶45 further to limit "computer-readable media" to the "specific examples" of ¶45, and not leave the broad definition that "'Computer-readable' media can be any media that contain, store, or maintain programs and data for use by or in connection with the instruction execution system."

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 5-8, 20, 24-27, 39, 50 are rejected under 35 U.S.C. 103(a) as being obvious over Connolly (US 6169873).

Regarding claim 1, Connolly discloses scanning that may scan up to two sides, and that analysis of a page's pixels is performed, and that the scanner provides images of the sides of sheets intended for image transfer (fig. 1, col. 5, lines 13-29, lines 54-67). (Thus, causing a scan engine to initiate a scan of an ordered set of physical objects is inherently provided for in order for the system to operate as such. Additionally, inherently, scanning by a scan engine occurs in order for the process to occur.) It is well known to those of ordinary skill in the art to obtain digital images from scans for image transfer (obtaining a first digital image of a first side of a physical object (paper)). The physical object is a first of an ordered set of physical objects (fig. 1); examining the first digital image to determine if it is substantially blank (col. 6, lines 28-31. Since a determination is done to see if images appear on one or two sides of first pages, it is inherent that the first digital image be determined if it is substantially blank in this context (col. 5, lines 54-63));

Connolly disclosed that it was well known to check a sheet for face orientation, and then make the assumption for the rest of the sheets in the stack. Connolly disclosed claim 1 (at least a first sheet), col. 2, lines 56-58 ("image sense" may refer to the face-up/face-down orientation for simplex reproduction, for example). Connolly disclosed checking 3 pages as a preferred embodiment before a determination of a page orientation was made, fig. 2, col. 6, lines 12-67, col. 7, lines 1-20. However, considering the previous disclosures of using a first sheet or inclusive of using a first sheet by signifying (at least a first sheet), it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to provide checking only one

sheet for face orientation (image sense), and then making the assumption for the rest of
the sheets in the stack for the purpose of increasing speed. The checking of additional
pages is an improvement that allows for error reduction and the system could easily be
implemented by only checking one page.

if the first side is not substantially blank, obtaining a first set of digital images,
each digital image of the first set being a digital image of a first side of a physical object
of the ordered set of physical objects (claim 1, col. 2, lines 56-58, col. 3, lines 42-52, col.
5, lines 41-44, col. 7, lines 5--25, previous discussions. Inherently a stack of sheets is
ordered.), and, sending the first set of digital images for processing (col. 7, lines 13-15,
claim 1); and if the first digital image is substantially blank, obtaining a second set of
digital images, each digital image of the second set being a digital image of a second
side of a physical object of the ordered set of physical objects, and sending the second
set of digital images for processing (col. 3, lines 42-52, 64-67, fig. 2, col. 6, lines 12-67,
col. 7, lines 1-25, and similar to previous discussion for other side).

Although Connolly did not distinctly disclose obtaining the second set of digital
images *only* if the first digital image is substantially blank, it would have been obvious to
provide removing the improvement of duplex determination in order that obtaining the
second set of digital images occurs *only* if the first digital image is substantially blank for
the purpose of allowing the invention to be easier to be less complicated. Connolly
discusses simplex having images on one side of the sheet, and duplex having images
on both sides of the sheet (col. 1, lines 38-41). Connolly discusses how automatic
detection of duplex may not always be desired for a user, and how a feature that would

be convenient for someone who intends to automatically detect and copy both sides of

a two-sided original may prove to be an inconvenience for someone who wishes to copy

only one side. Connolly discuss how, in many cases, the user knows straight away that

originals are either simplex, and would not wish for the system to scan for duplex sheets

(col. 2, lines 42-45). Connolly discusses how in the cases where the user is certain

whether originals are simplex, the user would not wish to wait for the paper handling

machine to verify what the user already knows (col. 2, lines 62-65). Connolly teaches

that a user may input that all pages are to simplex (previous, col. 6, line 48, 52). If the

system looks for all pages to be simplex, it would be at least obvious that when a first

page is scanned, if the first side is substantially blank, to check the second side for

image data. However, if the first side is not substantially blank, then, of course, the first

side would be taken as the side of the simplex page, and the second side would not

need to be checked since the pages are simplex (image data on one side). Similarly, if

the second side is not substantially blank and the first side was, then, of course, the

second side would be taken as the side of the simplex page. A simplex print is known

to have image data printed on only one side. It would have been obvious from the

discussion, understanding in the art, and the teachings of Connolly to set the side of the

page with image data as the simplex side for obtaining, thus providing greater flexibility,

simplicity, and/or speed from the previous discussion.

Further, as processing regarding the image files has been provided, it may be

said that processing by a file manager has been provided. Nonetheless, although

Connolly did not distinctly disclose sending the not substantially blank side of images to

be printed, Connolly disclosed col. 5, line 19, line 67, claim 7. It would have been obvious to one of ordinary skill at the time the invention was made to provide sending the not substantially blank side of images to be printed for the purpose of having an extra copy of information in case the first copy gets lost. Thus, processing by one of a print engine, a facsimile engine, an email engine, and a file manager may be shown.

Regarding claim 5, the claim inherits everything as applied above for claim 1. Connolly discloses that blank images are to be deleted (discarded). It would have been at least obvious to one of ordinary skill at the time the invention was made to provide discarding the first digital image if is substantially blank for the purpose of the output of the scanner not requiring as much space or transmission time.

Regarding claim 6, the claim inherits everything as applied above for claim 1. It was disclosed previously scanning the sheets in order to generate images, thus, reading on the claim.

Regarding claim 7, the claim inherits everything as applied above for claim 1. Although Connolly did not distinctly disclose sending the not substantially blank side of images to be printed, Connolly disclosed col. 5, line 19, line 67, claim 7. It would have been obvious to one of ordinary skill at the time the invention was made to provide sending the not substantially blank side of images to be printed for the purpose of having an extra copy of information in case the first copy gets lost.

Regarding claim 8, the claim inherits everything as applied above for claim 1. Although Connolly did not distinctly disclose sending the not substantially blank side of images to be facsimile transmitted, Connolly disclosed col. 7, lines 37-41, col. 5, line 15.

It would have been obvious to one of ordinary skill at the time the invention was made to provide sending the not substantially blank side of images to be facsimile transmitted for the purpose of having allowing someone far away to see the printed information.

Regarding claim 20, the claim is rejected based upon similar reasoning as applied above for claim 1. Changing the claim from one category of invention to another does not make the claim patentably distinct.

Regarding claim 24, the claim is rejected based upon similar reasoning as applied above for claim 5. Changing the claim from one category of invention to another does not make the claim patentably distinct.

Regarding claim 25, the claim is rejected based upon similar reasoning as applied above for claim 6. Changing the claim from one category of invention to another does not make the claim patentably distinct.

Regarding claim 26, the claim is rejected based upon similar reasoning as applied above for claim 7. Changing the claim from one category of invention to another does not make the claim patentably distinct.

Regarding claim 27, the claim is rejected based upon similar reasoning as applied above for claim 8. Changing the claim from one category of invention to another does not make the claim patentably distinct.

Regarding claim 39, the claim is rejected based upon similar reasoning as applied above for claim 1. The system simply provides structure for the method of claim 1 and is not patently distinct; thus, claim 39 is rejected for the same reasons as stated above in the rejection of claim 1.

Regarding claim 50, the claim is rejected based upon similar reasoning as applied above for claim 39. The "means for" providing the functions in the claim may be read upon by the system including the scanning device. Inherently, there is a means for causing the initiate of a scan, as claimed, in order for the process described to be able to operate.

4.   Claims 9 & 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connolly as applied to claims 1 and/or 20 above, and further in view of Garcia (US Publication Application Publication 2003/0048470).

Regarding claim 9, the claim inherits everything as applied above for claim 1. Although Connolly did not distinctly disclose sending images to be email transmitted, Connolly disclosed col. 7, lines 37-41, col. 5, line 15 which show long distance image data transfer capabilities.

In addition, in a similar field of endeavor, Garcia discloses a multi-function peripheral, including a scanning function. Garcia describes scanning documents to create a digital image of a document and an email function that permits electronic mailing of the digital image, as disclosed in paragraph 29.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Connolly by specifically providing sending images to be email transmitted, as taught by Garcia, for the purpose of allowing someone far away to see the printed information that was scanned by the system.

Regarding claim 28, the claim is rejected based upon similar reasoning as applied above for claim 9. Changing the claim from one category of invention to another does not make the claim patentably distinct.

5.   Claims 10 & 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Connolly as applied to claims 1 and/or 20 above, and further in view of Okubo (US Patent Application Publication 2005/0200903) and well known prior art (MPEP 2144.03), for further support.

Regarding claim 10, Connolly discloses everything claimed as applied above in claim 1.

However, Connolly did not disclose outputting image data to a computer. In a similar field of endeavor discloses a system that eliminates blank pages from image output. In addition, Okubo discloses that the data output unit 17 may send the image data to an external device such as a personal computer, as disclosed in paragraph 30.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Connolly by specifically providing outputting data to a computer as taught by Nakano, for the purpose of allowing for more user interaction with the images and the ability to store the images for later use. Further, Okubo discloses that it is conventional that read image data (from a scanner, for example) is stored in an image data file (¶4). Storage of a file may read on claimed archive. Additionally, Okubo discloses that storage of blank page image data is wasteful (¶6), and Okubo discloses eliminating blank image data, thus leaving only the image data of a non-blank page to be stored from the sides of a sheet (¶13, 15, 47). Considering this,

and the previous discussions, it would have been at least obvious to provide storage/archival of the output image file in context for the purpose of allowing for greater flexibility and/or insurance. For example, more copies could be produced later, the storage could act as a backup copy, etc.

Nonetheless, for further support, the examiner takes official notice of the fact that it was well known in the art to provide archival of a file.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the previous disclosures by specifically providing archival of the image file, for the purpose of providing the benefits mentioned above.

Regarding claim 29, the claim is rejected based upon similar reasoning as applied above for claim 10. Changing the claim from one category of invention to another does not make the claim patentably distinct.

Response to Arguments

Regarding the amendment to ¶45 of the specification, the examiner appreciates the applicant's desire to preclude the claims from being interpreted as signals, waves, etc. To further this aim, the examiner suggests amending ¶45 further to limit "computer-readable media" to the "specific examples" of ¶45, and not leave the broad definition that "'Computer-readable' media can be any media that contain, store, or maintain programs and data for use by or in connection with the instruction execution system."

6.   Applicant's arguments filed 10/8/2008 have been fully considered but they are not persuasive.

Regarding the discussion for claim 1 (and similarly-limited and dependent claims), as previously discussed, the repeated argument that because Connolly describes double-sided determination, no obvious modification could be made as discussed, is not persuasive.

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM C. STOREY whose telephone number is (571)270-3576. The examiner can normally be reached on Monday - Friday Eastern Standard Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Y. Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William C Storey/   William C Storey
Examiner, Art Unit 2625   Examiner
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